SUSTAINABLE INTENSIFICATION AND SHARED VALUES IN THE WIDER LANDSCAPE

Final Report: Learnings and recommendations from the project results.

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FOREWORD

The Sustainable Intensification and Shared Values Project started in 2019, after a Plantations Meeting in Brazil in 2018, where FSC members and certificate holders gathered to discuss the concept of sustainable intensification in forestry. The goal was to explore if it is possible for intensified forestry to produce and protect, while respecting and enhancing social, environmental and economic values.

Today, with the increasing demand for forest products and the urgent need to protect our forests at the same time, FSC raised the question – Can we provide renewable forest materials to a growing world population, and increase contributions to biodiversity at the same time? And while doing this, how do we foster ecosystem services, community resilience, and protect the rights of women, Indigenous Peoples, and workers?

From the establishment of the Sustainable Intensification Advisory Group (SIAG) of FSC members of all sub-chambers, to collaborative efforts at the Sustainable Intensification Solutions Forum (SISF) in 2019, FSC members and stakeholders engaged in discussions and reflections on sustainable intensification models across diverse forest types. The focus expanded to understand mechanism of intensification, and as result, the question of intensification through biotechnology emerged. Both were learning processes for FSC.

This report summarizes the achievements, learnings and recommendations from this work, that can shed light into other initiatives and processes. The FSC Board of Directors has seen the relevance of this workstream and encourages their integration into FSC processes such as Intact Forest Landscapes (IFLs), Focus Forests discussions, P&C revision and other related processes.

We hereby wish to express our acknowledgements to all the contributors of this work, from FSC SIAG and Members to staff, network partners, experts and consultants, participant certificate holders, organizations, stakeholders and everyone who dedicated their efforts into this project, for your sterling work and commitment to FSC.

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Summary

The project originated from an FSC Plantations Meeting in São Paulo, 2018, where members and certificate holders (CH) explored the concept of sustainable intensification (SI) in forestry. This led to the establishment of the Sustainable Intensification Advisory Group (SIAG in 2019) and continued collaboration through the Sustainable Intensification Solutions Forum (SISF).

The 2019 SISF convened ~50 FSC members, experts, and staff in Bonn to examine how intensified forestry could deliver shared environmental, social, and economic values. Recognizing the need to go beyond productivity, the forum focused on co-creating shared values in the wider landscape and arriving at the question of whether it is possible to balance intensification and sustainability, by identifying and measuring shared values in the landscape.

Among some remarkable insights from this work is the realization that intensified forestry should be made sustainable by the identification of ‘shared values’ in the landscape. An important concept for advancing social livelihoods and long-term environmental protection.

FSC understanding of shared values and insights on intensification were foundational concepts to develop. Discussion papers and reports were commissioned to environmental journalist Fred Pearce. Key points from this work were that FSC’s shared values includes ethical commitments (like sustainability and equity) and operational results (like economic benefits and ecosystem services), and these must be reflected in both internal processes and externally in certified forest practices. But challenges were also identified, such as how to define and measure shared values consistently but in a local context adapted way, or how to ensure intensification does not harm to surrounding landscapes or communities if FSC lacks control beyond certified areas.

From this work, SIAG members assembled the first list of social, environmental, and economic values that should be shared – either in the ethical or operational sense.

A debate emerged between technological developments on intensification and the precautionary principles, particularly around the issue of Genetic Engineering (GE). This debate evolved into the Genetic Engineering Learning Process (GELP), an exploration on intensification pathways in forest management, as a need to gain sufficient knowledge to make a deeper analysis of GE. However, it found a high level of concern about potential risks to FSC and was discontinued in 2023.

Moving on from the previous work, FSC and SIAG commissioned a report to explore how intensified forestry could contribute to shared values. Building on this, FSC, SIAG and consultants of Form International developed an initial set of metrics through partnerships in Southern Africa, Australia, and New Zealand—regions with strong certification systems and intensified plantations.

The tests revealed key challenges in engaging stakeholders and highlighted the need to shift from a top-down audit-style survey approach to locally adapted, value-centred engagement with stakeholders to better understand and communicate the benefits of intensified FSC certified forestry in a landscape.

Additionally, the project clearly demonstrated the importance of identifying and engaging stakeholders in their local context, when it comes to understand their values from intensified forestry.

This work finalizes with lessons learnt and recommendations for FSC ongoing and future processes.

1. Introduction: How the Project Started and Why

The Sustainable Intensification project emerged from the need to balance increased demand on productivity with sustainability and shared values. This initiative derived from the concept of sustainable intensification in forestry, which aims to meet the growing demand for wood and forest products while ensuring long-term environmental protection and enhanced social wellbeing.

Objective

The objective of the project was understanding sustainable intensification practices and identify whether, where and how shared values could lead to innovative social, environmental, and economic solutions that FSC can support and promote in the landscape.

Definition of Intensified Forestry

Intensified Forestry is the process of managing forest resources more efficiently to produce more forest products and services from the same forest area[1].

In 2022, a Discussion Paper on this topic was commissioned to the consultant Lars Laestadius, to explain intensification, shared-value at ethical and operational levels, and examine the relationship between intensified forestry and consumption through the lens of shifting population needs (Section 3).

Why intensification?

The world is facing increasing demands for forest products due to increasing population and a pressing need to eliminate fossil fuels for their effects in elevated CO_2 concentrations and climate change. One way of addressing this in with intensive forest plantations, a special form of intensified forestry. At the same time, there is an urgent call to stop deforestation, restore degraded ecosystems and protect biodiversity and other ecosystem services. This dual challenge, increase production and protection, has led FSC to explore whether sustainable intensification of forest management can be a potential solution.

Intensification is neither inherently good nor inherently bad. It depends on how it is done. Intensification does not necessarily lead to a better result. Unintended negative effects can arise; benefits may not be equitably shared. Too high intensity may pertain to the use of genetically modified organisms, fertilizers, pesticides, biological control agents, or non-native species.

What do we mean by sustainable intensification?

Sustainable intensification is one potential answer to the challenge: protecting forests and their invaluable benefits to the environment while simultaneously increasing production of the forest products that the world's growing population depends on. It aims to deliver "more with less" by improving productivity in intensified forests, while at the same time enhancing social and environmental values. It moves beyond the idea of intensification as purely economical, towards a holistic approach that promotes shared values from environmental stewardship, social welfare, and economic viability.

FSC certification is essential to ensure sustainability. The FSC Board of Directors established the Sustainable Intensification Advisory Group (SIAG) in 2019 to look at sustainable intensification in

[1] FSC-STD-01-001 (version 4-0) EN (1996)

Forestry and explore how shared values can be increased for all stakeholders through intensively managed FSC-certified forests. Since the beginning, the project aimed at intensively managed plantations. During 2024, the concept was expanded to include intensively managed natural forests.

The concept of Shared Values

FSC's Sustainable Intensification Advisory Group decided that it is the realization of shared values that makes intensification sustainable and needs to be considered at the landscape level, not just at the management unit (MU) level.

Definition of shared values

Shared values are the positive results of intensified forestry, recognized by stakeholders in the wider landscape. By looking at shared values, FSC wanted to understand whether and how intensified forestry impacts the wider landscape and Indigenous Peoples and local communities living in it. Including how shared values can be promoted and supported by FSC.

The shared value concept in the context of forestry was developed through a process of sequential dialogues, experts' discussions, meetings and reports; that is detailed in the following sections.

The role of SIAG

Appointed by the Board of Directors, the SIAG consisted of six members, equally representing the interests of the social, environmental, and economic chambers of FSC membership. SIAG was tasked with providing a balanced understanding of sustainable intensification and shared values, promoting broader engagement, knowledge-sharing and collaborative initiatives to support the development of FSC solutions.

SIAG played a fundamental role in shaping the project by providing expert guidance on all aspects related to Sustainable Intensification, and a balanced view between environmental, social, and economic perspectives. The SIAG was also overseen by Board Liaisons: Ralph Schmidt-Liermann until 2020; Stuart Valintine (until end of 2023) and Marcus Colchester (current, until end of the project in 2025).

Table 1. SIAG Members as of December 2024.

Sub-chamber	Member	Region
Economic North	Biond Forest Fibers from Portugal – Represented by Francisco Goes	Europe
Economic South	Forestal Arauco – Represented by Juan Anzieta	Latin America
Environmental North	Julee Boan	North America
Environmental South	WWF – Represented by Andrey Shegolev	Europe
Social North	Patrick Anderson	Asia-Pacific
Social South	Hermine Tuekam Kouam	Africa

Source: Intensified Forestry and Shared Values | FSC Connect

Once convened, SIAG started its work by reviewing the main findings of previous discussions about sustainable intensification in the agricultural sector. Agricultural intensification was demanded by rising populations and rising standards of living but was only made 'sustainable' if wider social and environmental values were also realized, either through 'land sparing' or 'land sharing', in the wider landscape. Academics were divided about whether such values were ever realized in practice or that sustainable intensification disguised a 'productivist' mindset. Drawing on these lessons and cautions, SIAG recognized that the drive for intensified forestry drew on a similar logic of rising need and demand. It also set out to identify the main social and environmental problems that can result from intensified forestry which needed to be countered if it was to be made sustainable. The key conclusions from these deliberations were that:

- Realizing **shared values** is what makes intensification **sustainable**.
- **Sustainable** intensification can only be reached at the landscape level or in large forest management units.

The SIAG then embarked on the task of listing what they could all agree were the shared values that needed to be realised.

The Sustainable Intensification Solutions Forum (SISF)

The SISF was assembled to clarify the concept of sustainable intensification in forestry, identify key governance, ecological, social, and technical concerns and prepare recommendations for FSC's future policy direction. The SISF gathered 38 participants from 27 organizations—including FSC staff, board members, academia, NGOs, industry and research institutions, and was organized as expert talks and facilitated discussions in Bonn, during May 2019. Topics included efficient silviculture, lessons from new-generation plantations, indigenous tenure, gender equity, biodiversity, climate-smart forestry, and landscape-level approaches, connecting intensification to SDGs and landscape resilience.

The forum reviewed concepts such as **land sharing** and **land sparing**, where land sharing integrates different land-use activities within the same landscape, promoting coexistence with biodiversity, in contrast to land sparing which separates high-yield areas from conservation zones within a landscape, aiming to protect natural habitats while intensifying productivity.

The SISF developed a shared understanding of challenges and opportunities in forest intensification and shared-value creation, provided a conceptual foundation for FSC's evolving approach to forest intensification and innovation around shared values, landscape approach, and tools that support inclusive, locally adapted, sustainability-aligned intensification. Together with the SIAG provided broad strategic direction for the project goals.

Table 2. Participants of the Sustainable Intensification Solutions Forum.

Sustainable Intensification Advisory Group (SIAG)			
Chamber	**Name**	**Country**	**Organization**
Economic	Francisco Goes	Portugal	CELPA
Economic	Juan Anzieta	Chile	Arauco
Environmental	Julee Boan	Canada	Ontario Nature
Environmental	Marco Lentini	Brazil	Individual member

Social	Hermine Tuekam Kouam	Cameroon	Individual member
Social	Marcus Colchester	UK	Individual member

Technical Experts		
Key Focus	**Name**	**Organization**
Potential of forestry & relations to ESS	Annika Nordin	SLU
Learning from agro sector	Barbara Smith	Centre for Agroecology, Water & Resilience
Improve productivity	Bjorn Sundberg	Stora Enso
Land rights & tenure	Joan Carling	—
Credibility and safeguards	Constance McDermott	Oxford University / Centre for the Environment
Gender	Dibya Devi Gurung	WOCAN
Role of forestry in Climate Change & SDGs	Gerhard Dieterle	ITTO
Learning from plantations	Luis Neves Silva	NGP / WWF
Socio-environmental landscapes & regional diffs.	Michael Allen Brady	CIFOR

Members			
Chamber	**Name**	**Country**	**Organization**
Economic	Aida Greenbury	Indonesia	Individual member
Economic	Etienne Bélanger	Canada	Forest Products Association Canada
Economic	Ian Hinton	New Zealand	Timberlands Limited
Economic	Janne Näräkkä	Finland	Finnish Forest Industry Federation

Economic	Mike May	Brazil	FuturaGene / Suzano
Environmental	Andrei Shegolev	Russia	WWF Russia
Environmental	Courtenay Lewis	USA	Natural Resources Defense Council
Environmental	Grâce Nicole Mbenda	Cameroon	Wildlife Conservation Society
Environmental	Grant Rosoman	New Zealand	Greenpeace International
Environmental	Luciana Papp	Brazil	Individual member
Social	Anatolii Lebedev	Russia	NGO BROC
Social	Arturo Barrit	Philippines	Associated Labor Unions - TUCP
Social	Davide Petenella	Italy	University of Padova
Social	Jasper Makalla	Tanzania	Mpingo Conservation & Development Initiative
Social	Ruben Cariqueo Huilcan	Chile	Fundacion Instituto Indigena

FSC Board of Directors

Chamber	Name
Economic	Ralph Schmidt-Liermann
Environmental	Mauro Armelin
Social	Alan Smith

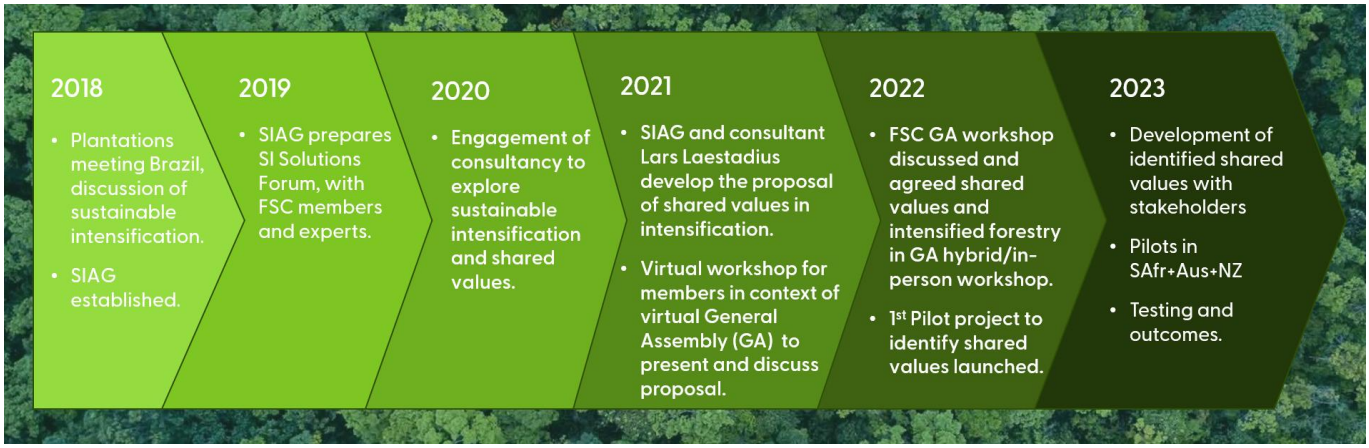
FSC staff

Name	Role
Kim Carstensen	Director General
Gemma Boetekees	Director Stakeholder Solutions
John Ramsay	Chelsworth Partners (facilitator)

Achim Droste	Chief Policy Officer
Henrik von Stedingk	FSC Sweden Policy and Standards
Marion Karmann	Senior Research Relations Manager

2. The work plan: What was done

Timeline



The project journey began with the Plantations Meeting in Brazil to the establishment of the SIAG in 2018 (See Annex A for a detailed timeline of the project).

The SIAG was tasked to explore how forest intensification can deliver shared values. This included advise on the implications of intensification technologies such as genetically modified (GM) trees in FSC-certified landscapes. SIAG's work followed two ideas: (1) identify the criteria or values by which any form of intensified forestry can be defined as 'sustainable', and (2) to advise the Board in its exploration to test the realization of such values in a trial commercial-scale planting of GM trees. The concept of sustainable intensification drew on literature and consultation with experts, spanning from agriculture into forestry and emphasized the need for intensification to "do no harm" and with preferably enhanced social and environmental values. It was noted that intensification of forest use is thousands of years old, and includes ancient management techniques like coppicing, pollarding and enrichment planting. Seeking sustainable intensification is thus not only relevant to 'third generation plantations' but is also a relevant concept for natural forest management in tropical and temperate forests and in the taiga. The SIAG identified the limitations of realizing these shared values within a Management Unit (MU), highlighting the importance of landscape-level approaches.

SIAG discussed what these shared values are and tabulated them (See Table 3. SIAG Components of shared value in the landscape, after 2024 revision). Thus, the SIAG (and later the SISF) endorsed the idea of shared values. Together the groups concluded that achieving shared values within a MU is rare and usually limited to very large MU. Additionally, while intensification might free up land for conservation ("land sparing"), this benefit is not guaranteed. Without strong landscape-level governance, increased profitability could instead lead to further expansion and the loss of environmental and social values.

At a meeting in 2019, the Sustainable Intensification Solutions Forum discussed the topic of GE and agreed that FSC should work to obtain a better understanding of this complex and evolving subject. Therefore, SIAG engaged in a dialogue about GMO trees, where the intention was to foster the exchange of ideas in the matter and to work with independent experts to investigate whether FSC was able to set up a learning project with companies and research partners, outside of certification. FSC engaged Reos Partners to work with the Advisory Group of members identifying members concerns and

needs (See section 6 on the Genetic Engineering Learning Process).

This work involved consulting both proponents and critics. While recognizing the scientific progress, SIAG recommended caution, since a decision on GM trials without broad member consultation could severely and detrimentally affect FSC's integrity. SIAG concluded that FSC must remain inclusive and transparent on such critical issues.

The FSC Secretariat, with the assistance of SIAG, organised several webinars for members on GE, including discussions of motions proposed on this topic (Motion 15 and 44).

Fred Pearce Series Reports on Shared Values, Intensification and Genetic Engineering

Until 2021, Information for members, including a knowledge paper, a dilemma paper, a timeline of the discussions held, and a risk analysis for FSC were developed by SIAG in cooperation with external consultants, especially Fred Pearce, UK-based science and environment journalist.

A series of documents were produced both in the issues of Shared values and GE:

- **Towards Shared Values in Sustainable Intensification A discussion report by Fred Pearce.**
- **Knowledge Paper.** An overview of technology developments in genetic engineering in forestry by Fred Pearce**.**
- **Genetic modification in forests.**
- **Reputational Risk Assessment by Fred Pearce. Reputational Risk Assessment for Consideration of an FSC Test Project for Genetic Engineering**.

Note: See available publications in Annex C.

Fred Pearce's work on shared value developed insights to integrate the concept of shared values into the practice of sustainable intensification. It is based on interviews to SIAG members and others, and explores ethical and practical means of shared values, asking strategic and theoretical questions about FSC future possibilities in this line.

Key points in the report were the shared values' connection to sustainability and equity and operational results such as economic benefits and ecosystem services; the need for a landscape approach, including landscape governance; and the importance of balancing intensification for economic viability and ethical stewardship of the forest. Some challenges that remain: Identifying and measuring shared values in a consistent but locally adapted manner and FSC lack of control beyond certified areas.

Main outputs form this work:

A list of shared values was created, categorized under social, environmental, and economic aspects. These are intended to guide sustainability identifiers in the context of intensified forest management.

The sparing vs. sharing debate from agriculture was introduced into forestry discussions. While both have merits, most SIAG members favoured a hybrid, landscape-based model that promotes shared value both within and outside forest management units.

The report emphasized the importance of addressing demand-side solutions too (e.g., reducing consumption, recycling) alongside supply-side improvements for a truly sustainable model of forestry.

FSC was encouraged to act not only as a certifier but as a convener of broader stakeholder dialogues and possibly a player in jurisdictional governance efforts.

Though progress was made, several dilemmas remained unresolved. As noted by the SIAG, the biggest challenge for FSC was how to go 'beyond the forest MU' if we want 'land sparing' to lead to greater 'land sharing', which is necessary for achieving 'shared value'. This is relevant for GM trees or any other forms of intensification. The next challenges related to deciding how to realise those shared values and how to verify whether they have been enhanced or not.

The discussion expanded beyond economic productivity to encompass long-term landscape planning, indigenous rights, and how shared values could be co-created to benefit different stakeholder groups in the wider landscape.

From this foundational work, FSC and the Advisory Group explored together advancing the first set of components for shared value (Table 3) towards a methodology aimed at "measuring" shared values through metrics.

With respect to genetic engineering, FSC and journalist Fred Pearce developed a starting document "An overview of technology developments in genetic engineering in forestry" provides an outline of advances in GE in the context of trees and forests, highlighting technological and policy issues. While some uncertainties may be clarified through further scientific research (given enough time though, due to long life cycles of trees) many debates are philosophical and value based. The discussion is often divided between technological optimists, who support calculated risk-taking, and precautionary advocates, who emphasize the need for stronger stewardship. The author noted that both worldviews involve risks, and its role was to present these perspectives rather than choose between them.

Additional summary articles on GE learning by Fred Pearce can be found in English (ENG) and Spanish (SPA) here:

Learning about GE - A series by F. Pearce
Article 1: Technologies | ENG | SPA (Introducing different technologies in genetic engineering)
Article 2: Opinions | ENG | SPA (Overview of opinions of stakeholder groups on genetic engineering)
Article 3: Regulations | ENG | SPA (Regulations in different parts of the world around GMOs)
Article 4: Case studies | ENG | SPA (Case studies, intensive plantations and traits of interest)

Lars Laestadius Report on Forest Intensification

A report by Lars Laestadius was commissioned to explore intensification conceptually and to look at the potential of intensified forestry to create shared value. The report emphasizes the importance of considering shared values at the landscape level. It highlights the need for responsible intensification practices that enhance productivity without compromising ecological and social integrity (See References).

The report then explores how FSC has understood and addressed intensification. The shared value criterion proposed by the SIAG, which combines aspirational aspects ("do better") with integrity ("do no harm") in the wider landscape, can potentially be used to identify responsible intensification. The report concludes by suggesting ways that the FSC community can move forward by gathering its own practical experience of shared value creation.

At the FSC General Assembly 2022, three side meetings related to Sustainable Intensification took place:

- Genetic Engineering Learning Process, Sunday 9 October 2022. A panel of 8 experts from different disciplines in technological, social and environmental sciences developed the first draft of a participation framework for FSC proposed GELP.

- Intensified forestry for Shared Value, Monday 10 October 2022. The SIAG together with consultant L. Laestadius developed a concept on what could make intensification in forestry sustainable. SIAG member Juan Anzieta, spoke about the role of the advisory group and their work over the past years. SIAG member Patrick Anderson spoke about why the work of sustainable intensification is important to FSC.
- Sustainable Intensification on the Ground – Practical Cases of Shared Value, Monday 10 October 2022. This session aimed at provoking technical and practical discussions among the members about an FSC framework for sustainable intensification to deliver shared values to society and environment. The cases covered several forest types, and issues such as forest productivity gains, conservation practices, sustainable use at landscape level, partnership with smallholders, and cooperative programs, among others.

“FSC should guide intensification so that it creates shared value” (Lars Laestadius, FSC General Assembly 2022).

Components of shared value in plantation forestry

SIAG tabulated various aspects of shared value in the context of intensification (The full list can be found in L. Laestadius report on intensified forestry for Shared Value, Annex 3). Table 3 provides a summary of suggested categories of shared values (after revision in 2024). These components served as basis for developing 106 shared values metrics, later refined to 65 (See Annex B for full list of metrics).

Table 3. SIAG Components of shared value in the landscape, after 2024 revision.

Overarching Value		
Landscape considerations.		
Taking responsibility for unintended harm.		
Economic	**Environmental**	**Social**
1. Economic value proposition of intensified forestry supports societal values	5. Management of ecosystem services in the landscape, including forest carbon stores and efficient use of environmental resources such as water and nutrients	9. Respecting land use rights of local communities and Indigenous Peoples, including ensuring food security
2. Engagement with local communities	6. Maintenance and/or enhancement of species composition, distribution and densities in managed forests	10. Benefits for small producers
3. Generation of dignified employment conditions for a trained local workforce	7. Protection and enhancement of forests that have high conservation value	11. Benefits for women and marginalized groups, including Indigenous Peoples
4. Higher yields and improved efficiency aim to spare land, reduce carbon emissions, resource sustainable consumption and environmental impact	8. Considering circularity in the supply chain, including but not limited to waste of FSC-certified wood fibre	12. Job retention and/or retraining and compensation
		13. Respecting the cultural and spiritual customary rights of local communities with their land and forests
		14. Respectful treatment of all Human Rights defenders
		15. Adherence to free, prior and informed consent

Source: Updated in 2024, 1st version in L. Laestadius Report: Forestry Intensification for Shared Value - Towards a Common Understanding.

This was the starting path to derive a comprehensive set of monitoring metrics for shared values, in partnership with FSC NP and their stakeholders in Southern Africa, Australia, and New Zealand. The monitoring metrics, which also include the components for shared values developed by the SIAG, aimed at identifying shared values from sustainable intensification in the wider landscape.

3. Testing shared values metrics

Testing metrics of shared values in the wider landscape

The next step was to explore if and how enhanced productivity can go along with long-term environmental and social benefits. The concept was to collaborate with stakeholders to identify shared values, using a landscape concept to address ecological, social, and economic processes in the local context.

Southern Africa, Australia, and New Zealand, recognized as significant forestry-producing countries with established intensified plantations and FSC certification programs, offered ideal environments for integrating shared values assessments into existing certification frameworks. The plan was to develop collection tool for field testing the monitoring metrics in all three countries (Box 1).

On the advice of SIAG and based on previous work and reports on identifying shared values for FSC, the Test project kicked off to help FSC learn more about shared values in intensified forestry. Responsible for implementing the project were FSC International, FSC Southern Africa and FSC Australia and New Zealand, supported by consultants of FORM International.

A set of 106 metrics were developed to capture the positive contributions of FSC-certified forests to people and ecosystems. These metrics provided a quantifiable way to measure shared values in forestry operations.

How they were developed: Co-created with stakeholders, certificate holders, and research partners, ensuring alignment with FSC's Principles & Criteria (P&C) and seeking landscape-level impact assessment. Form International, in collaboration with FSC and various stakeholders, conducted a rigorous process to develop metrics for sustainable forest management. This involved gathering proposed metrics from plantation managers and partnering companies in Australia, New Zealand, and South Africa, validating the initial draft with relevant stakeholders, and hosting workshops to collect feedback. The project included detailed consultations, data analysis, and field assessments, to develop a balanced and well-informed set of metrics. The iterative process led to a refined list, reducing the total number of metrics from 120 to 106, and achieving a balanced distribution between environmental and social aspects.

Box 1. A GIS-App with the indicator's survey questions.

Data and Innovations team at FSC International's developed a data collection tool thanks to FSC's collaboration with mapping technology company ESRI. The App was designed to store indicators data with geolocated features.

It consisted of a geo-referenced database that contained 116 questions to answer the 106 indicators of shared values, in a hand-held mobile phone app or as a desk survey.

Tests in Australia, New Zealand and Southern Africa

The launch of test studies (shared values metrics testing) in the selected regions, aimed to test the 106 metrics to understand how FSC-certified intensified plantations improve the lives of local communities and create lasting environmental and economic benefits across the landscape.

In mid-2022, tests were proposed by network offices in those countries to certificate holders. FSC forest managers in Southern Africa, Australia and New Zealand were invited to participate in the field tests. This involved:

1. CH agrees to do the field test and appoint a coordinator
2. Invite social and environmental stakeholders in the wider landscape where the forest management unit is situated to join in this field test and use the mobile-based facility
3. Upload data for each monitoring indicator into the data collection tool (Box 1) and ask the invited stakeholders to do the same for all relevant metrics
4. Provide feedback to FSC: is this useful, is it burdensome or doable, feedback on metrics, etc.

FSC National Office was the contact to assist with questions and comments.

The results from the field tests would then be used to refine the metrics and to test if this way of looking at shared values was effective and helpful for users to identify positive impacts of intensified forestry, and to detect points to further consider with their stakeholders.

Results from the tests

The first phase provided valuable insights but also highlighted the need for further refinement:

The tests faced low engagement from CHs and lack of participation from other stakeholders in the landscape. The surveys tried to be precise and comprehensive but were perceived by CHs as too extensive and resembling an audit. They were perceived as measuring performance rather than capturing the stakeholders' perception of shared values. CH were not clear how it related to the certification. This feedback was crucial. It highlighted the need for a more inclusive bottom-up approach—one that invites participation rather than resembles evaluation. This result was useful to identify pathways for improvement.

One important aspect to review was how to engage with stakeholders in the landscape. First it was necessary to identify who the stakeholders are and understand what they consider delivered shared values in the landscape.

By improving the approach, the thinking was that it may be possible to make shared values more associable to certification of P&C, and from there to identify benefits in the wider landscape.

Analysing the results: In-person meeting with SIAG in Bonn, 2024

An in-person meeting took place in Bonn, to look again at project goals in the current global sustainability scenario, go back to basics in project definitions and set new goals. From this event, some decisions were made:

- Ensure to identify shared values together with landscape stakeholders,
- Make the project inclusive of al intensified forestry not just plantations,
- Definitions were established: that values are globally applicable for intensified forestry in the wider landscape whereas Identifiers **are site-specific** (landscape-specific), and
- The list of values was reviewed, and this was the finishing point for the meeting's discussion.

Consultants of Form International were asked to revise the list of metrics, refine them, identify "core metrics" (defined as "Metrics considered essential for evaluating specific components of shared values"), discuss the lessons learnt, and implement improvements to set up a new framework for the project's goals.

From this work, an updated list of values (Table 3) and a revised list of metrics (Annex B) was developed.

4. Overall results

Main results and key achievements of the project

Through Testing, multi-stakeholder dialogues, and lessons learned, the project created a toolkit of products: metrics, shared values, and insights for approaching shared values in the landscape. As for the lessons learnt; one key issue was to move away from the complexity of audit-like metrics to connecting shared values with stakeholders at the local-level. A bridge between them are forestry good practices, but these need to be co-created to reflect shared values.

65 Shared Values Metrics (including 24 core)

Description: Development of 106 metrics, further refined to 65, with 24 “core” metrics for economic, social and environmental shared values.

Potential use: P&C revision, monitoring and evaluation, ecosystem services. Expand on benefits for (Social?) Ecosystem Services, Focused Forest discussions on landscape approaches.

List of Shared Values

Description: FSC+SIAG+SISF work identified components of shared value that have been updated (2024) into the List of Shared Values.

Potential use: Integrated and/or adapted into social components of ecosystem services and environmental, economic and social values in IFLs. For landscape governance.

L. Laestadius Report

Description: A report on intensification in the context of shared values from forestry

Potential use: Foundation for understanding, intensification and its relationship to shared values.

Draft GELP Participation Framework

Description: GELP on economic, social and environmental values and risks (now discontinued).

Potential use: Lessons for stakeholder processes on GMOs (and perhaps other similar processes).

5. The Genetic Engineering Learning Process

FSC had been discussing the possibility to engage in a learning process on Genetic Engineering since 2020. Internal conversations have been organised over 2021, with the main aim to engage members, the SIAG, the SISF, and the Board of Directors (BoD) to ensure points of view of different internal stakeholders are included.

The purpose of this process was to support FSC in gaining sufficient and trusted knowledge on developments in genetic engineering in forestry, through research activities by certificate holders and research institutions in non-FSC certified areas, as well as to explore a governance model that can be developed to provide rigorous safeguarding for such learning and research.

Dialogue Interviews with FSC Stakeholders were conducted in 2021 in collaboration with Reos Partner (See report Perspectives in FSC on the Learning Project on Genetic Engineering). The main conclusions of this work were that within FSC, both supporters and opponents of GE share a common vision and a common fear. The shared vision is that FSC continues to be both legitimate and relevant, upholding its principles of forest stewardship and a trusted label. The shared fear, however, was if decision-making becomes influenced by power or ideology, FSC may lose its credibility and coherence, potentially leading to fragmentation within the organization.

Who was interviewed in this process? Kim Carstensen, Gemma Boetekees, Stefan Salvador, Hans Joachim Droste, Ralph Schmidt Liermann, Dirk Riestenpatt, Heiko Liedeker, Marcus Colchester, Julee Boan, Bjorn Sundberg, Antti Marjokorpi, Mike May, Pablo Machado, Barbara Bramble, Grant Rosoman, Julia Young, Fred Pearce, Ian Hinton, Linda Fienberg and Yolanda Ramirez.

In 2021 the FSC Board agreed to open a membership-wide discussion about the possibility of establishing learning trials involving genetic engineering in forestry, outside certified areas and beyond current Policy for Association (PfA) limits. These trials would be conducted in partnership with research institutions and companies to explore the role of safeguards and shared value creation in GE. The Secretariat should work with the Sustainable Intensification Advisory Group (SIAG) and external experts to develop safeguards and shared value propositions for GE.

At the end of 2021, the BoD agreed to move forward with a Genetic Engineering Learning Process (GELP) tasked with developing guidelines for research projects selection, monitoring and evaluation.

The GELP was a two-year process initiated in 2021 to support members and stakeholders in deepening their understanding of the scientific, social, and environmental implications of GE, as an intensification tool for forestry. The core objective was to build an informed, shared knowledge base around genetic engineering technologies, their current applications, and their potential risks and benefits. This initiative was intended to strengthen FSC as a credible, science-based platform for evolving technologies.

To map out & understand how sustainable intensification is currently practiced/ under development by FSC certificate holders in all forest types, especially regarding genetic engineering, a question was raised: Do we fully understand the risks and benefits of genetic technologies?

To achieve this, FSC designed a structured process led by a Panel of Experts (PoE), composed of independent experts in genetics, ecology, forest biotechnology, ethics, and social sciences (See Table 4). The project applied an exploratory methodology, including background research, webinars, expert interviews, and stakeholder dialogues to gather diverse perspectives to draft what was called the “Participation Framework”.

Table 4. Genetic Engineering Learning Process Panel of Experts

Name	Title	Affiliation	Country
Rachel A. Ankeny	Professor of History and Philosophy of Science	University of Adelaide	Australia
Andrew Blackwell	Independent Sociologist	Independent Consultant	United States
Jason A. Delborne	Associate Professor of Science, Policy, and Society	North Carolina State University	United States
Desirée Elizondo	Researcher and Lecturer	National Autonomous University of Nicaragua (UNAN)	Nicaragua
Aditi Mankad	Principal Research Scientist in Social Science	CSIRO (Commonwealth Scientific and Industrial Research Organisation)	Australia
Steve Strauss	Professor of Forest Biotechnology	Oregon State University	United States
Peter Wood	Independent Consultant	3Sustainability	Canada

The Participation Framework is a set of conditions and requirements for participating in the FSC's multi-year GE learning project. Its key elements are safeguards and risk mitigation (ensures safety and risk management strategies are in place), shared value creation (mechanisms to create social, environmental, and economic value), governance (structures to ensure effective implementation and oversight), stakeholder involvement (involves stakeholders in controlling and setting boundaries on GE developments), respect for rights (ensures respect for the rights of Indigenous Peoples and local communities) and precautionary principle (adheres to the precautionary principle to avoid potential harm). This framework would guide the participation of certificate holders or research institutions in the learning project on Genetic Engineering.

One key finding in this process was the diversity of views and information gaps, particularly regarding risk assessment frameworks and governance of emerging technologies. The process also confirmed strong support among FSC stakeholders for continued precaution and prohibition of GE in FSC-certified forests, while recognizing the need to stay informed on science and innovation.

The GELP PoE provided guidance throughout the project, for the learning process to remain credible, balanced, and science based. The panel's final reflections emphasized the importance of continuous learning within FSC, recommended capacity building for FSC staff and members, and advised on potential next steps for how FSC could track scientific developments without compromising its core principles.

After a planned review of the GE Learning Process during their Board Meeting in March 2023, the FSC Board of Directors decided to discontinue the learning process. The decision considered the different views in FSC’s membership around the learning process, the division this brought to FSC as well as the

potential risk to FSC's mission and reputation. The Board affirmed that (apart from literature reviews, desk studies and research allowed by the current Policy for Association) no investigations of genetically modified trees would be undertaken or called for by FSC without first ensuring broad membership engagement and agreement. A statement from the FSC Board of Directors can be found **here**.

6. Learnings and recommendations

Most important insights

Are shared values still relevant?

The relevance of shared values remains, but the methodology and framing need adjustment to move from metrics to benefits, as perceived from stakeholders in the landscape.

Shared Values Must Be Identified with Stakeholders, Not for Them

Metrics were drafted based on prior definitions by SIAG and regional partners. Field testing showed a disconnect between metrics and locally perceived values—too much emphasis on quantifiable data, not enough on qualitative or contextual meaning.

Simplicity facilitates; complexity disengage

A key failure was trying to measure too many things which overwhelmed CH and resembled an audit, creating resistance. Stakeholder engagement must be based on simplicity: Simpler tools with clear, practical identifiers.

Shared Values (as most ecosystem services) are meaningful at the landscape scale, but FSC is based in the management unit

FSC is currently reflecting on landscape-level solutions, but it’s not an easy shift. To catalyse impact, it may be necessary to develop innovative models for certification in the landscape.

Who defines the landscape and how to reflect ecological and social dynamics?

Landscape boundaries were implicitly tied to the certificate holder's MU and surrounding stakeholders, but no standardized or participatory method for defining landscapes was applied. This remained a gap.

How do we identify and engage with stakeholders in the landscape?

Stakeholder engagement was done through network partners and local FSC staff, but it became evident that neither they nor certificate holders consistently knew all relevant stakeholders. Stakeholder mapping needs to be systematic and inclusive. Local actors must be involved in identifying stakeholders, not just contacted for feedback.

How can we support community participation in monitoring and verification?

Community-led monitoring remains an opportunity for FSC. Future work must prioritize participatory methods from the beginning.

7. Decision

During BM102 in Warsaw, Poland, June 2025; the FSC Board of Directors decided to discontinue the Sustainable Intensification and Shared Values Project, once this final report on project achievements has been publicly submitted.

At the same time, the Board of Directors acknowledged the important contributions of this workstream and emphasize its interest that the project results are made available to ongoing and upcoming FSC initiatives. In particular, the Board recognised that the insights and lessons learned from the work of SIAG are directly relevant to the ongoing discussions on Focus Forests, Intact Forest Landscapes and Intact Cultural Landscapes and to the revision of the Principles and Criteria.

Furthermore, the Board encouraged that the SIAG members continue to engage with FSC and contribute with their expertise and dedication.

REFERENCES

The following referenced information and documents are relevant for this report.

Report of the Sustainable Intensification Solutions Forum Bonn/Germany - 24 June – 26 June 2019	Main findings from the SISF meeting in Bonn, 2019. Broad spectrum of presentations to understand elements of sustainable intensification in forestry.
Intensified Forestry and Shared Values | FSC Connect	Project website on FSC connect.
An overview of technology developments in genetic engineering in forestry compiled by Fred Pearce 2021.	Overview of techniques used in Genetic Engineering in forestry, considering both the potential benefits of this technique as well as the drawbacks that diverse scientific and active NGO communities raise. This knowledge paper was reviewed by 2 experts, one nominated by Futuragene and one by Greenpeace.
Forestry Intensification for Shared Value by Lars Laestadius 2022.	Sustainable Intensification Report. Intensified forestry for Shared Value. A Discussion Report by Lars Laestadius, 31 May 2022.
GELP-Participation-Framework-final.pdf 2023	This framework guides the participation of certificate holders or research institutions in the learning project from 2023 to 2025.
Testing metrics for economic, environmental and social shared values of FSC certified plantations. Work document 2024. Form International.	Report describing the process to develop metrics, further adjustments, definition of core indicators and lessons learnt.
Final list of metrics 2024	Excel spreadsheet with the tabulated list of metrics.

Note: See Annex C for Resources List on Sustainable Intensification foundational papers 2018-2021.

Annex A FSC Sustainable Intensification and Shared Values Timeline – Detailed.

FSC Sustainable Intensification and Shared Values Timeline – Detailed.

2018: Plantations Meeting in São Paulo

- **Kick-off**: FSC members and certificate holders gathered in Brazil to explore sustainable intensification in forestry.
- **Milestones**: Formation of the Sustainable Intensification Advisory Group (SIAG) and focus on long-term landscape planning and indigenous rights.

2019: Sustainable Intensification Solutions Forum (SISF)

- **Collaboration**: SIAG organized a forum with 50 FSC members and international experts to discuss sustainable intensification models.
- **Goals**: Identifying new social, environmental, and economic strategies for FSC certification through shared aspirations.

2020: Developing a Framework for Sustainable Intensification

- **Next Steps**: Plans to expand insights from previous meetings with a side meeting at the FSC General Assembly.
- **SIAG Tasks**: Advising on sustainable intensification, engaging in research, and developing a framework. Analysed global trends influencing the demand for sustainable forest products.

2021: Creating Shared Value

- **Advisory Role**: SIAG focused on strategies and field trials to enhance shared value through intensification.
- **Framework Development**: Collaboration with consultant Lars Laestadius.
- **General Assembly**: Highlighted the importance of innovation and collaboration in sustainable forestry.

2022: Vision for Shared Values in the Wider Landscape

- **Test Exploration**: Testing landscape-scale applications for shared values.
- **SIAG**: Defining shared value components and addressing landscape-specific questions. Advising FSC Board of Directors on Learning project on genetic engineering.
- **Report**: Lars Laestadius emphasized the shrinking land availability, climate change, and biodiversity protection.
- **Engagement**: Launching a test project in Southern Africa, Australia, and New Zealand with Form International.
- FSC Board of Directors puts the genetic engineering learning project on hold.

2023: Identifying Shared Values in Intensive Forestry

- **Test Kick-off**: SIAG-led project to co-create metrics for assessing the impacts of FSC-certified plantations. Test projects on shared value in Southern Africa, Australia and New Zealand.
- **Output**: Developed a draft list of monitoring metrics and a mobile-based data collection tool for field tests.

- Using the collection tool, field tested the metrics in all three countries.
- 1st Tests finished.
- The results of the Testing phase revealed the need for better engagement strategies with CHs and SHs, provided insights into the barriers to participation, and underscored the importance of reinforcing communication and engagement strategies.

2024: Analysing the results and main outputs from Tests

- **Advisory Role**: SIAG and FSC Secretariat participated on an In-person meeting in Bonn, to go back to basics and look at project objectives and fundamentals.
- **Main questions**: Is the goal of measuring shared values in plantation forestry still meaningful today? Are adjustments needed to the project's scope, roles, or deliverables? Who defines shared values and how are they reflected in metrics? What process ensures metrics are co-created, relevant to local contexts, and avoid audit-like data collection? How do we identify and engage stakeholders at landscape level? How can we simplify and improve stakeholder engagement tools?
- **Outputs**: The categorized shared values were revised by SIAG. The list of 116 metrics was refined to 65 and a "core" set of 24 metrics was identified.
- **Conclusions**: The relevance of shared values remains, but the methodology and framing need adjustments, a new framework is needed, engagement and metrics needed to be simplified. A values-first approach is needed. Values should follow stakeholder engagement, not precede it.

Annex B List of 65 refined metrics, including 24 “core” metrics

Indicator Count of Indicator	Core	Normal	Total
Economic	**5**	**12**	**17**
Creation of economic value in a way that also creates value for society	**1**	**3**	**4**
Non-forestry activities being undertaken within the MU with shared value		1	1
Percentage of total expenditures allocated to community support services		1	1
Total number of beneficiaries from community support services	1		1
Which community support services are provided to local communities and/or Indigenous Peoples?		1	1
Engagement with local communities	**1**	**4**	**5**
Area within the MU that is designed, managed and implemented through a participatory process with local stakeholders (co-management)	1		1
Have these participatory processes been formalized through a binding agreement?		1	1
Is a community engagement plan in place?		1	1
Number of participants actively engaged in outgrower, smallholder, and livelihood planting programs		1	1
Which activities and/or mechanisms are in place to facilitate communication, engagement, and effective participatory decision-making?		1	1
Generation of dignified employment conditions for a trained local workforce	**1**	**2**	**3**
Change in the occurrence of occupational accidents and occupational diseases through efforts/measures from the CH		1	1
Median gross earnings of contractors/indirectly employed workers as a percentage of the median gross earnings across the MU		1	1
Minimum wage as a percentage of the median gross earnings of full-time workers across the MU	1		1
Higher yields and improved efficiency to spare land, reduce carbon emissions, resource consumption and environmental impact	**2**	**3**	**5**
Average change in fire occurrence through efforts/measures from the CH over the past five years within the Management Unit and its immediate surroundings	1		1
Average change in occurrence of forest pests and diseases through efforts/measures from the CH over the past five years within the Management Unit and its immediate surroundings	1		1
Relative forest plantation area (production area) covered by indigenous / native tree species (remaining area = exotic species)		1	1

Indicator Count of Indicator	Core	Normal	Total
Relative forest plantation area (production area) covered by mixed species planting (remaining area = monoculture)		1	1
Total forest plantation area managed for production		1	1
Environmental	**9**	**15**	**24**
Maintenance of ecosystem services in the landscape	**1**	**8**	**9**
Does the CH have any CB-verified FSC ecosystem services claims (benefits people obtain from ecosystems)? If so, what type of claims:		1	1
Excess width of riparian protection (buffer) zones, compared to local mandates (see above), implemented along or surrounding water bodies with permanent water and wetlands.		1	1
Number of habitat trees and/or trees of indigenous species retained per hectare in regenerated stands (either remnant from historic vegetation or from previous rotations)		1	1
Proportion of set asides/conservation areas within the MU additional to applicable obligatory or voluntary jurisdictional requirements/covenants/agreements	1		1
Wetland and riparian delineation being applied		1	1
What are the mandated requirements regarding slope restrictions, specifying the gradient beyond which logging is prohibited? (such as applicable national/state Code of Practice, national/state regulations, and/or conservation covenants/easements)?		1	1
What are the mandated requirements related to riparian protection (buffer) zones along or surrounding water bodies that have permanent water and wetlands (such as applicable national/state Code of Practice, national/state regulations, and/or conservation covenants/easements)?		1	1
What are the mandated requirements related to set aside/conservation areas (such as applicable national/state Code of Practice, national/state regulations, and/or conservation covenants/easements)?		1	1
What is the portion of the management unit occupied by steep slopes where logging is prohibited, despite these areas falling within mandated slope limits (refer to indicator Env.4.8)		1	1
Maintenance of forest carbon stores	**1**	**2**	**3**
Steps and measures taken to reduce carbon emissions or enhance carbon sequestration:	1		1
Total area under an independently verified carbon certification scheme (VCS, Gold Standard, etc.)		1	1
Total carbon sequestered per rotation per ha (production forest)		1	1
Maintenance of species composition, distribution and densities in managed forests	**1**	**1**	**2**
Have native/indigenous plant species and/or animal species been reintroduced by the CH?		1	1

Indicator Count of Indicator	Core	Normal	Total
Proportion of the MU actively dedicated to the restoration of native ecosystems to more natural conditions by favouring or restoring native species and associations of native species	1		1
More efficient use of environmental resources such as water and nutrients	**2**		**2**
What kind of water management programs are in place?	1		1
What measures are taken to improve soil quality and health?	1		1
Protection and enhancement of forests that are either intact or have high conservation value	**3**	**4**	**7**
Are remnants of natural forests or restored native forests within the MU effectively connected to nearby (remnants of) natural forests outside the MU through corridors or designated set-asides?		1	1
Are there corridors or designated set-asides connecting the remnants of natural forests or restored native forests within the MU?		1	1
Has occurrence of HCV 2. Landscape-level ecosystems and/or mosaics been identified at HCV assessment?	1		1
Has occurrence of HCV 3. Ecosystems and habitats been identified at HCV assessment?	1		1
Has occurrence of HCV 4. Critical ecosystem services and/or Basic ecosystem services in critical situations been identified at HCV assessment?		1	1
Has occurrence of one or more of the HCV 1. Species diversity elements been identified at HCV assessment?	1		1
IUCN red list species count in the MU including Critically Endangered (CR), Endangered (EN), Vulnerable (VU), and Near Threatened (NT) species - classifying species can be found at iucnredlist.org		1	1
Reducing waste of FSC-certified wood fibre in the supply chain	**1**		**1**
Wood fibre waste reduction strategies are implemented during:	1		1
Social	**10**	**14**	**24**
Adequate lands for local livelihoods and ecosystem services	**1**	**2**	**3**
Area within MU that is used for subsistence purposes by local communities and/or Indigenous Peoples (if applicable)	1		1
Have HCV 5. Community needs been identified at HCV assessment?		1	1
Impact of forest management activities within the MU on neighbouring/affected communities and/or Indigenous Peoples		1	1
Benefits for small producers, including access to the intellectual property rights of any trialled products	**1**		**1**
Are intellectual property rights associated with silvicultural aspects, or the wood products value chain tracked and documented? This includes patents, trademarks, copyrights, or other forms of protection for innovative products or technologies	1		1

Indicator Count of Indicator	Core	Normal	Total
Benefits for women and other marginalized groups	**2**	**4**	**6**
Are formal benefit-sharing agreements or mechanisms for fair compensation in place with local communities and/or Indigenous Peoples?	1		1
Hours invested in work safety training for female workers per worker during the last 12 months		1	1
Median gross earnings of female workers as percentage of the median gross earnings across the MU		1	1
Proportion of female workers		1	1
Proportion of female workers in senior and middle management (supervisors)		1	1
Total area outside the MU boundaries that is managed and/or established by the company (in part or in whole) for the benefit of local communities, Indigenous Peoples (if applicable), individuals, and households	1		1
Job retention and/or retraining and compensation	**1**	**3**	**4**
Hours invested in capacity and/or health and safety training during the last 12 months		1	1
Hours invested in contractor training during the last 12 months		1	1
Proportion of workers directly employed	1		1
Proportion of workers indirectly employed (including contractors)		1	1
Local food security	**1**		**1**
Non-forestry activities being undertaken within the MU contributing to local food security:	1		1
Maintaining the cultural and spiritual links of local communities with their land and forests	**1**	**3**	**4**
Are sites or resources of special cultural, ecological, economic or spiritual importance for the traditional cultures of local communities or Indigenous Peoples accessible to indigenous/local communities (co-management, subsidizing)	1		1
Area available and/or managed for specific cultural, research or educational purposes		1	1
Have HCV 6. Community needs been identified at HCV assessment?		1	1
Percentage of total expenditures allocated to research, management and protection of cultural values/areas with spiritual significance		1	1
Protection for the rights of activists, whistle-blowers and others	**1**		**1**
Are there policies and/or procedures in place to protect whistleblowers, activists and human rights defenders against threats, harassment and violence?	1		1
Remedies in case of unintended harm	**1**		**1**

Indicator Count of Indicator	Core	Normal	Total
Existence of a reconciliation action plan or similar agreement with the specific intent of reconciling differences or past wrongs inflicted on local communities and/or Indigenous Peoples as applicable	1		1
Respect of customary and other land rights, including adherence to free, prior and informed consent	**1**	**2**	**3**
Has Free, prior and informed consent (FPIC) been granted by neighbouring/affected communities and/or indigenous peoples prior to management activities that affect their identified rights?	1		1
Has such Free, Prior and Informed Consent been formalized through a binding agreement?		1	1
Have rights of tenure and/or rights of access to and use of forest resources by local communities and/or indigenous peoples been identified?		1	1
Grand Total	**24**	**41**	**65**

Annex C Resources list on sustainable intensification 2018-2021.

A complete overview of all publications on Sustainable Intensification with links to all documents and recordings on Shared Value in conventional intensification and the Genetic Engineering Learning Process can be accessed here.

Title	Description	Source/Location	Link
Fact Sheet Sustainable Intensification (EN/ES)	Overview of both intensified forestry projects: shared value and GE learning.	Members Portal	EN, ES
Roadmap Sustainable Intensification (EN/ES/FR)	Presentation of SIAG roadmap and approach.	FSC Regional Meetings	EN, ES, FR
Towards Shared Values in Sustainable Intensification	Discussion paper by Fred Pearce on ethical and operational shared value.	Members Portal	EN, ES
Shared Values FAQ (EN/ES)	Key questions about the Shared Values project in intensified forestry.	Members Portal	EN, ES
Conventional Intensification Framework – Full & Summary	Lars Laestadius' report on how conventional intensification can produce shared value.	Members Portal	Full, Summary
Forestry Intensification for Shared Value	Discussion paper by Laestadius linking CI in forestry with FSC certification.	FSC Connect	EN, ES
FSC GE Learning Process Announcement (EN/ES)	Launch of GE learning process outside certified areas.	FSC.org & Members Portal	EN, ES
GE Learning FAQs – Updated	Overview of the learning process structure, panel, and expectations.	Members Portal	EN, ES
GE Knowledge Paper	Overview of GE technologies and impacts by Fred Pearce.	Members Portal	Link

Title	Description	Source/Location	Link
Learning Series (1–4)	Articles by Fred Pearce on GE technologies, opinions, regulations & case studies.	Members Portal	Part 1, Part 2, Part 3, Part 4
Draft GELP Participation Framework	Panel of Experts governance framework for discussion.	Members Portal	Link
SIAG/SISF Meeting Reports	Meeting outputs from SIAG & SISF, including insights on Shared Value and GE.	Members Portal	Plantation Meeting (2018), SIAG June 2022, SISF Sept 2021

Annex D SIAG Recommendations: Individual Insights on Paths Forward

SIAG individual perspectives from past work going forward.

Name: Andrei Shchegolev.

Affiliation: Individual member, Environmental South.

Sustainable intensification and shared values involved two main work streams: shared values from intensification and the genetic engineering learning process, as a form of intensification in forestry.

The work of shared values in the landscape aimed at going beyond productivity towards socio-ecological and cultural values, to explore whether there was a bridge between forestry good practices by certified forest management units and landscape-level outcomes identified by stakeholders. SIAG discussed what these values are and tabulated them.

In 2022, pilot studies in South Africa, Australia, and New Zealand tested metrics for shared values. However, withdrawal rates and lack of stakeholder involvement prevented us from collecting information on landscape-level outcomes. Organisations were hesitant to share information due to reputational or regulatory concerns, and stakeholders were not surveyed by certificate holders. Thus, having tabulated the shared values, the real challenge was how to identify those in the landscape and to verify whether they have been enhanced or not as a result of intensified forestry.

The strength of values for landscape approaches is its contribution to a shift from monitoring physical-environmental features to monitoring local value outcomes as guidance for co-stewardship of a landscape. However, shared values need to be coupled with a framework that engages stakeholders widely, certifies values-based outcomes, and addresses monitoring and landscape-level governance. Therefore, the question is how FSC Normative Framework can promote the realization of shared values and how to address landscape governance beyond the forest management unit (with stakeholders often not associated with FSC) to effect positive changes in landscape sustainability and resilience, so that these shared values are realized.

The shared value concept remains helpful and relevant for landscape approaches, challenging us to think about what FSC is trying to achieve in terms of forest stewardship.

The genetic engineering learning process was indeed a learning in terms of how the technology has advanced and what are the challenges for FSC regarding tree biotechnology. The long-term implications are yet to be seen.

Name: Patrick Anderson

Affiliation: Social North, Individual. Policy Advisor, Forest Peoples Programme.

Finding ways that sustainable intensification can have positive impacts in the wider forest landscape remains an unfulfilled challenge for FSC. The concept of shared values has been very useful in discussing these issues, but it remains unclear how FSC can incentivise forest managers to support shared values in the landscape beyond their own concessions.

FSC's work on environmental services, and its plan to develop methodologies for biodiversity and carbon credits provide venues for discussions on promoting shared values to continue. FSC's work on jurisdictional approaches may provide a way to progress from discussions to actions so that shared values in the wider forest landscape can be recognised and those values are respected and supported.

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